

The Examiner objected to the specification, and relatedly rejected Claims 23, 25-26, under 35 U.S.C. §112, first paragraph for "failing to adequately teach how to make and/or use the invention, i.e., failing to provide an enabling disclosure." Specifically, the Examiner objected to the introduction into Claim 23 of what he construed as speech recognition hardware. This was not the intent of the Claim. Rather, as contemplated by the specification, the Claim was intended to include voice communications means which would allow any user to orally provide file editing instructions to the user of the host computer who would then input the instructions. Claim 23 has been amended to avoid further confusion.

The Examiner objected to the drawings under 37 C.F.C. §1.83(a) again due to the confusion over the inputting of instructions by voice communications means. Thus, by amending Claim 23 to avoid such confusion, Applicant submits that this objection has also been obviated.

The Examiner also rejected Claims 1-23, 25-26 under 35 U.S.C. §112, second paragraph, as being indefinite. Applicant respectfully traverses the grounds for this rejection on several points. Claim 2 has been rejected because "it is unclear whether the voice communications means for anyone PC is the same for any other PC." Applicant submits that merely because a claim is broad does not make it indefinite. Therefore it is not understood why Applicant should have to delineate whether the voice communications means are identical as long as each performs the function described in the Claim.

Claims 3 and 5 have been rejected, in part, for lacking antecedent basis for "said remaining personal computers." However, the antecedent basis in both instances can be found in Amended Claim 1, line 17. Note that this antecedent basis was present prior to the latest Amendment.

The rejection of Claim 5 on the grounds that it is unclear as to what "analog communications network" refers is not understood. Examiner states that the analog communications network "has not been set forth in the Claims." However, "an analog communications network" is positively set forth in line 7 of Claim 5. Applicant is therefore confused as to the meaning of this rejection.

Pursuant to the Examiner's instructions, other claims have been Amended to overcome the rejection under 35 U.S.C. §112, second paragraph. In addition, Applicant has further amended claims to more particularly claim and distinctly point out the instant invention.

Claims 1-23, 25-26 were also rejected under 35 U.S.C. 103 as being unpatentable over Tompkins et al. As discussed in the response to the first Office Action, Applicant respectfully disagrees that Tompkins et al. in any way renders obvious the claimed invention.

For the convenience of the Examiner, the instant invention will be re-summarized here.

The present invention permits a group of two or more people, each with a personal computer and situated in diverse locations, to provide input regarding edits to be made to a file or document resident in the computer used by one of the group, allows each person in the group to view the file, and allows each to receive and view edits to the file without the transfer of the entire file. No known methods or means for collaboration have allowed each member of a collaborative group to view a file or document, provide input regarding editing to such file, and view edits as they are made. The present invention does.

The interactive editing system of the present invention obviates the disadvantages of prior art systems in which a user

might have to wait for extended periods of time before inputting an edit. The present invention allows edits to be made and seen essentially in real time, and by avoiding such extended delays, the present invention overcomes the inaccuracies of a user's short-term memory as discussed in pages 6-7 of the present application.

In particular, Claim 1 is directed toward an interactive editing system for a plurality of users at respective remote locations for permitting any of the users to edit a file to be edited. The system comprises a plurality of personal computers, one for each of the users, and at least one of the personal computers (the "host" computer) has multi-tasking processing means for coordinating the execution of file editing operations input by any of the users and the transfer of data corresponding with the file editing operations comprising edits, which comprise less than the entire file, from the host to the remaining computers. Note that no one computer is permanently designated as "host computer." Any of the personal computers with multi-tasking capabilities can act as host during a particular editing session. The editing operations and the data transfer occur in a substantially real-time basis such that all the users are permitted to see edits substantially as they occur. The system further includes interconnecting means for electrically interconnecting the host with the remaining personal computers to permit transmission of electrical signals therebetween.

Claim 9 further includes interconnecting means specifically comprising a non-dedicated digital communications system for electrically interconnecting the host with the remaining personal computers to permit transmission of electrical signals therebetween.

Claim 18 is directed toward a method using the system set forth in Claim 1.

Claim 23 is directed toward an embodiment of the invention in which as few as one user has a personal computer with multi-tasking capabilities (the host computer) and the rest of the users have remote terminals with displays. This embodiment permits users to provide oral editing instructions pertaining to a file to the user of the host computer and to view the editing provided by any particular user on their displays. The system provides voice communications means for each of the users for transmitting audio signals representative of any user's voice and the orally provided editing instructions to each of the remaining users (e.g. a conference call).

By virtue of the claimed novel combination of elements, the present invention is exceedingly flexible and can take advantage of readily available hardware, software and communications networks to provide a system by which users at remote locations can interactively edit a document or file without having to send the entire file either electronically, by facsimile, or by courier as in the previously discussed prior art methods. Moreover, changes made to the file can be viewed by the users contemporaneously as the changes are made with little or no delay being perceptible to a user.

The Examiner bases the §103 rejection on the assertion that the claimed invention would have been obvious in view of Tompkins et al. to one of ordinary skill in the art. However, Applicant maintains that Tompkins et al. do not disclose or suggest a system which allows users of personal computers or terminals at remote locations to interactively edit a file. More specifically, Tompkins et al. do not disclose or suggest the use of personal computers or terminals in various remote locations interconnected to permit the users to provide input

regarding edits to be made to a file, allow the users to view the file and allow them to receive and view edits in real time without the transfer of the entire file. Moreover, Tompkins et al. do not even disclose or suggest editing a file, much less transferring data corresponding with the file editing operation from a personal computer having multi-tasking means.

The following arguments with respect to specific embodiments of the present invention were made in response to the First Office Action and were not fully addressed by the Examiner: Tompkins et al. do not disclose or suggest the ability of any member of a collaborative group to input editing operations into a personal computer and do not disclose or suggest the ability of any member of a collaborative group to orally provide editing instructions. Furthermore, Tompkins et al. do not disclose or suggest an interconnect network comprising a non-dedicated digital communications systems interconnecting the host with the remaining personal computers or remote terminals; do not disclose or suggest any communications network other than a local or intra-facility coaxial network, such as a local area network (LAN); and do not disclose or suggest any means for polling the personal computers or remote terminals to receive editing operations input by the users.

The Examiner contends that the Local Area Network (LAN) of Tompkins et al. makes the interconnection network of the present invention obvious. The Examiner cites a definition of LANs which states that "these networks usually provide access to external networks." However in no way does this definition suggest that these "external networks" then become part of the LAN, or that everything which can be accomplished within the LAN can then be necessarily accomplished in these "external networks." Tompkins specifically states that the

"communications link is comprised of a single coaxial cable disposed between each of the video terminals and the switching and control networks." (Col. 3, lines 16-18). Therefore, Tompkins actually teaches away from the present invention which uses a non-dedicated communications network in the preferred embodiment.

In addition, the LAN which Tompkins discloses is unrelated to the claimed subject matter of the instant invention. The Tompkins system is directed toward a full motion, color video conferencing network in which a plurality of video terminals are connected to a centralized controller. The data which is sent over the Tompkins network only pertains to the configuration of the remote video terminals and is used by the central controller to configure a switching network to provide appropriate audio and video paths. Furthermore, the keypad which is associated with each remote unit is used to initiate operational functions, such as displaying the video on one screen or another. There is absolutely no disclosure or suggestion that the keypad can be used to enter editing instructions pertaining to a file, much less pertaining to a file on a personal computer. Further, Tompkins offers no suggestion or disclosure of a system where edits to less than an entire file would be available to users at remote locations in real-time.

Examiner also asserts that the "function of polling is a commonly-used one in communications networks, and as such, is obvious to employ to one of ordinary skill in the art." Applicant respectfully traverses this assertion as well. Applicant maintains that specifically polling the input from each of the inputting means of personal computers in an interactive editing system would not have been obvious to one of ordinary skill in the art at the time the invention was made. Further, Applicant submits that excluding one or a plurality of

the inputting means from the sequential polling so as to lock those users out of the editing process would also not have been obvious to one of ordinary skill in the art. Moreover, Tompkins neither suggests nor discloses anything which would have led one of ordinary skill in the art to employ these polling or polling exclusion schemes.

Finally, the Examiner asserts that many of the differences and benefits which set the instant invention apart from the Tompkins reference are not apparent in the Claims. However, an examination of the presented Claims will reveal that all of the above-stated differences are embodied in the Claims. Consequently, Applicant respectfully submits that the instant invention, as presently claimed, would not have been obvious to one of ordinary skill in the art at the time the invention was made in view of Tompkins.

Applicant's attorneys hereby authorize the Patent Office to debit any fee due for the filing of this Preliminary Amendment to Deposit Account No. 19-1970. Applicant's attorneys also invite the Examiner to contact the undersigned by collect telephone call if the Examiner believes that such contact would facilitate prosecution of this case.

Respectfully submitted,

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